

**REMARKS**

Claims 9-11, and 19-24 are currently pending in this application. By this amendment, claims 9-11 have been amended, claims 12 and 14-18 have been canceled without prejudice or disclaimer including their presentation in a continuing application, and claims 19-24 have been added. Of the currently pending claims, claims 9, 19, and 22 are independent. Applicant respectfully submits that the above amendments do not add new matter to the application and are fully supported by the specification at least at pages 4 and 5 of the specification.

In view of the above amendments and the following Remarks, Applicant respectfully requests reconsideration and timely withdrawal of the pending rejections for the reasons discussed below.

***Rejections Under 35 U.S.C. § 102/103***

Claims 9-12, and 14-18 stand rejected under 35 U.S.C. § 102(b) as being anticipated by or, in the alternative, under 35 U.S.C. § 103(a) as obvious over U. S. Patent No. 6,656,238 issued to Rogers, ("Rogers"). Applicant respectfully traverses this rejection for at least the following reasons. Claims 12 and 14-18 have been canceled without prejudice or disclaimer including their presentation in a continuing application.

Claim 9 has been rewritten as a method claim to positively recite the method steps for forming the material of the claimed invention. Claim 9 requires, among other limitations, "carbonizing said green foam to form a carbonized foam by heating said green foam to a maximum temperature ranging from about 600°C to about 800°C, and soaking at this temperature for about 2 to about 30 minutes."

Applicants direct the Examiners careful attention to page 4, line 20 - page 5, line 8 of the specification where it recites

carbon foams exhibiting a dielectric constant of from about 2 to about 6 and simultaneously an electrical resistivity in the range of between about  $1.E^{+00}$  ohm-cm to about  $1.E^{+06}$  ohm-cm, demonstrate excellent radar emission absorptivity in the megahertz and gigahertz ranges.

The production of carbon foams of this type is controlled by restriction of the temperature of the carbonizing step to a relatively narrow range of from about 600°C to about 800°C and preferably from about 600°C and about 700°C. Attainment of the desired combination of dielectric constant (reactance) and resistivity is achieved after soaking at these temperatures for only a matter of minutes, preferably from about 2 to about 30 minutes and most preferably between about 5 and about 20 minutes under an inert gas.

Specification, Page 4, line 20 – page 5, line 8.

Further, the Examiner is directed to Figure 2 where it shows how the electrical resistivity changes as a function of soaking temperature for the carbon foam. This figure shows that as the carbon foam soaking temperature increases from 0 to 3000°C, the electrical resistivity of the carbon foam decreases from  $10E^{+07}$  to  $10E^{-02}$  ohm-cm. This figure clearly shows that carbon foam heat treated above 800°C exhibits quite different electrical resistivities than carbon foam heat treated at temperatures ranging from 600°C to 800°C. According to figure 2, carbon foams heat treated above 800°C have electrical resistivities below about  $1E^{-01}$  ohm-cm, while carbon

foams heat treated in the range of the claimed invention of about 600° to about 800°C exhibit electrical resistivities ranging from about  $1E^{+00}$  to about  $1E^{+06}$  ohm-cm.

Rogers discloses heating carbon foam above 800°C for 1 to 3 hrs. Rogers fails to disclose, teach, or suggest carbonizing green foam to form a carbonized foam by heating said green foam to a maximum temperature ranging from about 600°C to about 800°C, and soaking at this temperature for about 2 to about 30 minutes. As discussed above, heating carbon foam to temperatures above 800°C produces a different carbon foam material as illustrated in Figure 2.

Applicant submits that all the limitations of claim 9 are not disclosed, taught or suggested in Rogers. Accordingly, claim 9 is not anticipated or obvious over Rogers. Applicant respectfully requests withdrawal of the 35 U.S.C. § 102(b)/103(a) rejection. Since the references of record do not disclose, teach, or suggest all the features of the claimed invention, Applicant respectfully submits that independent claim 9 and all the claims that depend therefrom are allowable.

Claims 9-11 and 14-18 stand rejected under 35 U.S.C. § 102(b) as being anticipated by U. S. Patent No. 5,888,469 issued to Stiller, et al., ("Stiller") or in the alternative, under 35 U.S.C. § 103(a) as obvious over the Stiller. Applicant respectfully traverses this rejection for at least the following reasons. Claims 14-18 have been canceled without prejudice or disclaimer including their presentation in a continuing application.

Claim 9 has been rewritten as a method claim to positively recite the method steps for forming the material of the claimed invention. Claim 9 requires, among other limitations, "carbonizing said green foam to form a carbonized foam by heating said green foam to a

maximum temperature ranging from about 600°C to about 800°C, and soaking at this temperature for about 2 to about 30 minutes.”

Stiller fails to disclose teach or suggest carbonizing to a maximum temperature ranging from about 600°C to about 800°C and soaking at this temperature for about 2 to about 30 minutes. Stiller discloses calcining at 975°C to 1025°C. Stiller, c. 4, ll. 36-37. As discussed above and illustrated in Figure 2, heating carbon foam to temperatures above 800°C produces a different carbon foam material than those heat treated at temperatures ranging from about 600°C to about 800°C.

Accordingly, since the all the limitations of claim 9 are not present, taught or suggested in Stiller, Applicant respectfully requests withdrawal of the 35 U.S.C. § 102(b) / § 103(a) rejection of claim 9. Since the prior art of record does not disclose, teach, or suggest all the features of the claimed invention, Applicant respectfully submits that independent claim 9 and all the claims that depend therefrom are allowable.

Claim 12 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Stiller in view of U.S. Patent No. 6,673,328, issued to Klett et al., (“Klett”). Claim 12 has been canceled without prejudice or disclaimer including its presentation in a continuing application. Accordingly, this rejection is now moot. .

The Examiner has rejected claims 12, 14 and 15 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 4,999,385, issued to McCullough, Jr. et al., (“McCullough”) or in the alternative under 35 U.S.C. § 103(a) as obvious over McCullough. Claims 12, 14 and 15 have been canceled without prejudice or disclaimer including their presentation in a continuing application. Accordingly, this rejection is now moot.

***Rejection under Obviousness – Type Double Patenting***

The Examiner has rejected claims 9-11 and 14-18 under the judicially created doctrine of obviousness-type double patenting for a variety of positions as articulated in paragraphs 14-21 of the Office Action. Claims 14-18 have been canceled and claims 9-11 have been amended as discussed above. Applicant respectfully submits that these rejections are now moot in view of the present amendments to claim 9. Should the Examiner maintain any portion of the obviousness-type double patenting rejections, Applicant respectfully requests that these obviousness-type double patenting rejections be held in abeyance until allowable claims are indicated by the Examiner. Subsequently, if necessary, the Applicant will file a terminal disclaimer to overcome the rejections.

***New Claims***

Claims 19-24 have been newly added and are directed to additional aspects of the invention. Applicants submit that the newly added claims are allowable in their present form.

***Other Matters***

Applicant believes that a three (3) month extension of time is required at this time extending the period for responding to August 23, 2005. A petition for a three-month extension of time is attached hereto. If further extensions of time are necessary to prevent abandonment of this application, then such extensions of time are hereby petitioned for under 37 C.F.R. § 1.136(a). Applicant believes that no further fees for net addition of claims are required at this time. Any fees required for extensions of time and any fees for the net addition of claims are hereby authorized to be charged to Deposit Account No. 503310.

Applicant submits that a full and complete response has been made to the pending Office Action and respectfully submits that all of the stated objections and grounds for rejection have been overcome or rendered moot. Accordingly, Applicant respectfully submits that all pending claims are patentably distinct from the prior art of record and are in condition for allowance. The Examiner is thus respectfully requested to pass the above application to issue.

Should the Examiner feel that there are any issues outstanding after consideration of this response; the Examiner is invited to contact the Applicant's undersigned representative at the number below to expedite prosecution. Prompt and favorable consideration of this Reply is respectfully requested. Applicant respectfully requests that a timely Notice of Allowance be issued for this application.

Respectfully submitted,



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